Complete Summary

TITLE

Community-acquired bacterial pneumonia: percentage of patients who were prescribed an appropriate empiric antibiotic.

SOURCE(S)

Physician Consortium for Performance Improvement®. Clinical performance measures: community-acquired bacterial pneumonia. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2006. 8 p. [14 references]

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the Measure Validity page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of patients aged greater than or equal to 18 years diagnosed with community-acquired bacterial pneumonia who were prescribed an appropriate empiric antibiotic.

RATIONALE

According to the American Thoracic Society (ATS), outpatients with community-acquired bacterial pneumonia (CAP) should receive an appropriate empiric antibiotic: advanced generation macrolide or doxycycline, for patients with no cardiopulmonary disease and no modifying factors; beta lactam plus macrolide or doxycycline or fluoroquinolone alone for patients with cardiopulmonary disease and/or risk factors.

According to the Infectious Diseases Society of America (IDSA), fluoroquinolones are recommended for initial empiric therapy of selected outpatients with CAP; macrolides (plus a beta lactam when resistance is an issue) and doxycycline is recommended for uncomplicated infections.

PRIMARY CLINICAL COMPONENT

Community-acquired bacterial pneumonia; appropriate empiric antibiotic (advanced generation macrolide, doxycycline, beta lactam, fluoroquinolone)

DENOMINATOR DESCRIPTION

All patients aged greater than or equal to 18 years with community-acquired bacterial pneumonia (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

NUMERATOR DESCRIPTION

All patients with an appropriate empiric antibiotic prescribed (see the "Rationale" field)

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- Update of practice guidelines for the management of community-acquired pneumonia in immunocompetent adults.

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Variation in quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

Stanton M. Improving treatment decisions for patients with community-acquired pneumonia. Research in action, Issue 7. AHRQ Publication number 02-0033. [internet]. Rockville (MD): Agency for Healthcare Research and Quality; 2002 Jul[accessed 2004 Sep 30]. [10 p].

State of Use of the Measure

STATE OF USE

Pilot testing

CURRENT USE

Internal quality improvement
National reporting

Application of Measure in its Current Use

CARE SETTING

Emergency Medical Services
Hospitals
Physician Group Practices/Clinics

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Advanced Practice Nurses
Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

Age greater than or equal to 18 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

In the United States, an estimated 5.6 million cases of community-acquired bacterial pneumonia (CAP) occur annually, resulting in an average of 4.5 million visits to physicians' offices and as many as 1.1 million hospitalizations.

EVIDENCE FOR INCIDENCE/PREVALENCE

Centers for Disease Control and Prevention (CDC). Introduction to Table V. Premature deaths, monthly mortality, and monthly physician contacts--United States. MMWR Morb Mortal Wkly Rep1997 Jun 20;46(24):556-61. PubMed

Garibaldi RA. Epidemiology of community-acquired respiratory tract infections in adults. Incidence, etiology, and impact. Am J Med1985 Jun 28;78(6B):32-7. PubMed

Niederman MS, McCombs JS, Unger AN, Kumar A, Popovian R. The cost of treating community-acquired pneumonia. Clin Ther1998 Jul-Aug;20(4):820-37. PubMed

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Community-acquired bacterial pneumonia (CAP) is a serious and common illness with a considerable and increasing impact on the nation's health. In the United States, CAP is the 6th leading cause of death, and the number one cause of death from infectious disease.

EVIDENCE FOR BURDEN OF ILLNESS

Pinner RW, Teutsch SM, Simonsen L, Klug LA, Graber JM, Clarke MJ, Berkelman RL. Trends in infectious diseases mortality in the United States. JAMA1996 Jan 17;275(3):189-93. PubMed

UTILIZATION

See the "Incidence/Prevalence" field.

COSTS

The total direct and indirect costs of community-acquired bacterial pneumonia (CAP) are estimated at more than $10 billion annually (with 92% of this amount spent on hospital care).

EVIDENCE FOR COSTS

Stanton M. Improving treatment decisions for patients with community-acquired pneumonia. Research in action, Issue 7. AHRQ Publication number 02-0033. [internet]. Rockville (MD): Agency for Healthcare Research and Quality; 2002 Jul[accessed 2004 Sep 30]. [10 p].

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

All patients aged greater than or equal to 18 years with community-acquired bacterial pneumonia

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions
All patients aged greater than or equal to 18 years with community-acquired bacterial pneumonia

Exclusions

- Documentation of medical reason(s) for not prescribing an antibiotic (e.g., allergy, drug interaction, contraindication, other medical reasons)
- Documentation of patient reason(s) for not prescribing an antibiotic (e.g., economic, social, religious, other patient reasons)
- Documentation of system reason(s) for not prescribing an antibiotic

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition
Encounter

DENOMINATOR TIME WINDOW

Time window is a single point in time

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions
All patients with an appropriate empiric antibiotic prescribed (see the "Rationale" field)

Exclusions
None

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Encounter or point in time

DATA SOURCE

Administrative data
Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Community-acquired bacterial pneumonia: empiric antibiotic

MEASURE COLLECTION

The Physician Consortium for Performance Improvement® Measurement Sets

MEASURE SET NAME

Community-Acquired Bacterial Pneumonia Performance Measurement Set

SUBMITTER

American Medical Association on behalf of the Physician Consortium for Performance Improvement®

DEVELOPER

Physician Consortium for Performance Improvement®

FUNDING SOURCE(S)

Unspecified

COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

John Tooker, MD, FACP (*Co-Chair*); H. Christopher Alexander, III, MD, MACRhe, FACP (*Co-Chair*); Laurence E. Briski, MD, JD, FCAP; Karina Carr, MD; A. Todd Davis, MD; Joseph P. Drozda, Jr., MD, FACC; Scott Endsley, MD, MSc; Peter Houck, MD; David G. Jaimovich, MD; Thomas W. Lukens, MD, PhD, FACEP; Heber MacMahon, MD; Martin C. Mahoney, MD, PhD; Lionel A. Mandell, MD; Susan Nedza, MD, MBA, FACEP; Michael S. Niederman, MD; Reed E. Pyeritz, MD, PhD, FACP, FACMG; Josie R Williams MD, MMM; Richard Wunderink, MD, FCCP

Nancy Lawler, RN, Joint Commission on Accreditation of Healthcare Organizations

Philip Renner, MBA, National Committee for Quality Assurance

Karen S. Kmetik, PhD, American Medical Association; Erin O'Brien, American Medical Association; Litjen Tan, PhD, American Medical Association

Tim Kresowik, MD, Consultant

FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

INCLUDED IN

Physician Quality Reporting Initiative

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2006 Mar

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

Physician Consortium for Performance Improvement®. Clinical performance measures: community-acquired bacterial pneumonia. Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2006. 8 p. [14 references]

MEASURE AVAILABILITY

The individual measure, "Community-Acquired Bacterial Pneumonia: Empiric Antibiotic," is published in the "Clinical Performance Measures: Community-Acquired Bacterial Pneumonia." This document and technical specifications are available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® Web site: www.physicianconsortium.org.

For further information, please contact AMA staff by e-mail at cqi@ama-assn.org.

NQMC STATUS

This NQMC summary was completed by ECRI on January 30, 2007. The information was verified by the measure developer on October 25, 2007.

COPYRIGHT STATEMENT

Physician Performance Measures (Measures) and related data specifications, developed by the Physician Consortium for Performance Improvement® (the Consortium), are intended to facilitate quality improvement activities by physicians.

These Measures are intended to assist physicians in enhancing quality of care. Measures are designed for use by any physician who manages the care of a patient for a specific condition or for prevention. These performance Measures are not clinical guidelines and do not establish a standard of medical care. The Consortium has not tested its Measures for all potential applications. The Consortium encourages the testing and evaluation of its Measures.

Measures are subject to review and may be revised or rescinded at any time by the Consortium. The Measures may not be altered without the prior written approval of the Consortium. Measures developed by the Consortium, while copyrighted, can be reproduced and distributed, without modification, for noncommercial purposes, e.g., use by health care providers in connection with their practices. Commercial use is defined as the sale, license, or distribution of the Measures for commercial gain, or incorporation of the Measures into a product or service that is sold, licensed or distributed for commercial gain. Commercial uses of the Measures require a license agreement between the user and American Medical Association, on behalf of the Consortium. Neither the Consortium nor its members shall be responsible for any use of these Measures.

THE MEASURES ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND.

Disclaimer

NQMC DISCLAIMER

The National Quality Measures Clearinghouse™ (NQMC) does not develop, produce, approve, or endorse the measures represented on this site.

All measures summarized by NQMC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public and private organizations, other government agencies, health care organizations or plans, individuals, and similar entities.

Measures represented on the NQMC Web site are submitted by measure developers, and are screened solely to determine that they meet the NQMC Inclusion Criteria which may be found at http://www.qualitymeasures.ahrq.gov/about/inclusion.aspx.

NQMC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or its reliability and/or validity of the quality measures and related materials represented on this site. The inclusion or hosting of measures in NQMC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding measure content are directed to contact the measure developer.

Date Modified: 11/3/2008